



AMENDMENT TO THE CLAIMS

Claims 6, 14, and 25-43 are pending.

Claims 1-5 (Cancelled)

Claim 6 (Presently amended) ~~A composition as set forth in claim 4 wherein said~~ A tooth whitening composition for use in light-activated tooth whitening, comprising:

a transparent first component comprising a carrier compound; and

a transparent second component comprising an oxidizing compound which when applied to a stained tooth and exposed to actinic light is activated to facilitate tooth whitening;

wherein said second component comprises a peroxyacid precursor is selected from a the group consisting of glyceryl triacetate, acetylated amino acids, acetylsalicylic acid and tetraacetythyldiamine.

Claims 7-13 (Cancelled)

Claim 14 (Currently amended) A composition as set forth in claim 13 A tooth whitening composition for use in light-activated tooth whitening, comprising:

a transparent first component comprising a carrier compound; and

a transparent second component comprising an oxidizing compound which when applied to a stained tooth and exposed to actinic light is activated to facilitate tooth whitening;

a third component being a photoactivating agent comprising a semiconductor particles, which when exposed to actinic light enhances the activation of said second component to facilitate tooth whitening; wherein said semiconductor particles are nanometer sized oxides of titanium or zinc.

Claims 15-24 (Cancelled)

Claim 25 (Currently amended) A two-part tooth whitening system, comprising:

a first part comprising a metal ion chelator that is capable of activating tooth whitening when in contact with indigenous metal ions in the mouth, said first part also comprising a pH-adjusting agent; and,

a second part comprising hydrogen peroxide.

Claim 26 (Previously added) A two-part tooth whitening system according to claim 25, wherein the metal ion chelator is selected from the group consisting of ethylenediamine tetraacetic acid (EDTA), diethylenetriamine pentaacetic acid (DETPA), nitrilotriacetic acid (NTA), 1-hydroxyethylidene-1,1-diphosphonic acid, ethylenediamine tetra(methylenephosphonic acid), and diethylenetriamine penta(methylenephosphonic acid).

Claim 27 (Previously added) A two-part tooth whitening system according to claim 25, wherein the metal ion chelator is a non-carboxylated polyhydroxy compound.

Claim 28 (Previously added) A two-part tooth whitening system according to claim 27, wherein the non-carboxylated polyhydroxy compound is selected from the group consisting of sorbitol, xylitol, mannitol, maltitol, and lactitol.

Claim 29 (Previously added) A two-part tooth whitening system according to claim 25, wherein the hydrogen peroxide is present at a concentration between about 3 percent by weight to about 15 percent by weight.

Claim 30 (Previously added) A two-part tooth whitening system according to claim 25, wherein the first part is aqueous and alkaline.

Claim 31 (Previously added) A two-part tooth whitening system according to claim 25, wherein the first part further comprises ions of one or more transition metals.

Claim 32 (Previously added) A two-part tooth whitening system, comprising:

a first part comprising a metal ion chelator which, in the absence of transition metal ions, is transparent to light of wavelengths from about 350 nm to about 700 nm, but in the presence of a metal ion, becomes an activator capable of absorbing light of wavelengths from about 350 nm to about 700 nm, and wherein the first part also comprises a pH-adjusting agent; and,

a second part comprising hydrogen peroxide.

Claim 33 (Previously added) A two-part tooth whitening system according to claim 32, wherein the metal ion chelator is selected from the group consisting of ethylenediamine tetraacetic acid (EDTA), diethylenetriamine pentaacetic acid (DETPA), nitrilotriacetic acid (NTA), 1-hydroxyethylidene-1,1-diphosphonic acid, ethylenediamine tetra(methylenephosphonic acid), and diethylenetriamine penta(methylenephosphonic acid).

Claim 34 (Previously added) A two-part tooth whitening system according to claim 32, wherein the metal ion chelator is a noncarboxylated polyhydroxy compound.

Claim 35 (Previously added) A two-part tooth whitening system according to claim 34, wherein the noncarboxylated polyhydroxy compound is selected from the group consisting of sorbitol, xylitol, mannitol, maltitol, and lactitol.

Claim 36 (Previously added) A two-part tooth whitening system according to claim 32, wherein the hydrogen peroxide is present at a concentration between about 3 percent by weight to about 15 percent by weight.

Claim 37 (Previously added) A two-part whitening system according to claim 32, wherein the first part is aqueous and alkaline.

Claim 38 (Previously added) A two-part whitening system according to claim 32, wherein the first part further comprises ions of one or more transition metals.

Claim 39 (Previously added) A two part tooth whitening system, comprising:
an alkaline first part comprising a pH-adjusting agent and a metal ion chelator
that, when bound to a metal ion and in contact with the surface of a tooth, becomes an activator
capable of accelerating tooth whitening; and

a second part comprising hydrogen peroxide;

wherein when the first and second parts are applied to a tooth, the first and second
parts are sufficiently transparent to light such that about 10 to about 200 milliWatt/cm² of light of
wavelengths between about 350 nm and about 700 nm can be applied to a tooth surface bearing
the first part and the second part.

Claim 40 (Previously added) A two-part tooth whitening system according to claim 39,
wherein the metal ion chelator is selected from the group consisting of ethylenediamine
tetraacetic acid (EDTA), diethylenetriamine pentaacetic acid (DETPA), nitrilotriacetic acid
(NTA), 1-hydroxyethylidene-1,1-diphosphonic acid, ethylenediamine
tetra(methylenephosphonic acid), and diethylenetriamine penta(methylenephosphonic acid).

Claim 41 (Previously added) A two-part tooth whitening system according to claim 39
wherein the metal ion chelator is a non-carboxylated polyhydroxy compound.

Claim 42 (Previously added) A two part tooth whitening system according to claim 41,
wherein the non-carboxylated polyhydroxy compound is selected from the group consisting of
sorbitol, xylitol, mannitol, maltitol, and lactitol.

Claim 43 (Previously added) A two-part tooth whitening system according to claim 39,
wherein the hydrogen peroxide is present at a concentration between about 3 percent by weight
to about 15 percent by weight.